

# SUMMARY

Prepared by Peg Hanna



## **Diesel Initiatives On-Road Workgroup Meeting**

**Held August 10, 2005 from 10:00-1:00**

**Meeting Location: Rutgers Eco-Complex,  
Burlington County**

**Meeting called by: Peg Hanna**

**Facilitator: Melinda Dower**

### **Materials:**

- 1. Revised Chart of On-Road Strategies based on discussions from July 29<sup>th</sup> Meeting.**

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### **Discussion**

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## Topic 1: Continued discussion and development of strategy chart drafted July 29, 2005.

**Discussion:** The discussion was a review of the updated chart on the various strategies to reduce diesel emissions on various on-road vehicles. Additional topics that were discussed included not only ways to reduce diesel emissions directly, but also methods that vehicles could use to save fuel and reduce maintenance intervals, thus indirectly reducing diesel emissions. There were several strategies added to the July 29<sup>th</sup> chart that would directly reduce on-road PM emissions, such as truck stop electrification, high voltage systems on trucks and mandatory PM reductions in non-attainment areas. Other strategies discussed would decrease fuel consumption, thus reducing PM emissions, such as: wide-based single tires, speed reduction and frictionless braking equipment.

See updated strategy chart for comprehensive list of each item discussed. Specific discussions not captured on the chart are as follows:

- Implement maintenance program for trailer chassis at the port. Typically these chassis are not owned by the trucking companies and do not currently require any type of inspection. As a result these chassis often fall in disrepair in terms of tires, brakes and bearings. Currently the Governor is scheduled to sign a Roadability Bill A-1478 which would require chassis maintenance. This Bill will bridge the gap until a federal mandate is enacted which is scheduled in approximately 2 to 3 years. It was suggested that the tenants at the port form a "chassis pool", so that the truck driver will only have to go to one location to pick up a chassis and the tenants could pool their resources and centralize a maintenance program for the chassis. A well-maintained chassis would increase fuel mileage and be safer on the roads. *Go to the following link for a copy of the legislation:*  
[http://www.njleg.state.nj.us/2004/Bills/A1500/1478\\_R1.HTM](http://www.njleg.state.nj.us/2004/Bills/A1500/1478_R1.HTM)
- Telma Brake Retarder – An electromagnetic device used in heavy duty diesel applications where there is a lot of stop and go operation, such as transit buses and refuse trucks. The device assists the trucks existing braking system, saving money on brake maintenance and replacement. Waste Management installed some at cost of \$8000 each, but they expect to break even in less than 5 years because they're tripling their brake life.
- Automatic tire inflation - Gail Toth will try to get additional information on this strategy. *Also look at the following link:* [www.tireinflation.com/html/design/howdoesitwork.html](http://www.tireinflation.com/html/design/howdoesitwork.html)
- *Wide based tires - Look at the following link for more information:*  
<http://www.epa.gov/smartway/documents/supersingles.pdf>
- Hybrid vehicles - NJ Transit has 7 hybrids which have shown 20% fuel savings (~\$4000 per year per vehicle) and average reliability. Maintenance is problematic but can be solved with better engineering. Hybrids were \$100,000 more than diesel bus. Even though fed govt contributed 80% cost share, the payback period is not sufficient to justify wide scale purchase. EMA stated that the emission benefits from a hybrid are negligible compared to 2007 vehicles which are near zero emission vehicles. NJDEP pointed out that the improved fuel economy will produce emission benefit even when compared to 2007 vehicles.
- Mobile Source Credit Trading - Require stationary sources to offset emission increases or comply with new, more stringent permit limits by reducing emissions from their mobile fleet. Should require that certain percent of credits generated be retired or offset ratio be >1:1 in order to ensure environmental benefit. Europe has a trading program for CO<sub>2</sub>. Netherlands are investing \$200 million per year in reducing greenhouse gases 6% below 1990 baseline, and are also devaluing credits by 20%. Perhaps we can piggyback on NJ's Regional Greenhouse Gas Initiative (RGGI).
- Automatic engine shutoff systems on buses to prevent excessive idling. This would be effective but can be defeated by increasing engine RPMs in idling mode. Much public objection because the public wants to step into a temperature controlled bus. NJDEP will send information to NJ Transit regarding proposed changes to existing idling regulations.

Utilizing remote sensing to find PM and haze "hot spots" throughout the state, then focus enforcement activities or PM reduction strategies in those areas. (An alternative is for DEP to develop criteria for defining hot spots.) Information from diesel inspection centers not necessarily indicative of hot spots because trucks inspected at that location don't necessarily drive in that location. Burlington County rep thought there had been some work on satellite imagery to show hot spots (just like NARTSO did for ozone). NJDEP and Burlington County will try to get additional information.

**Wrap-up**

Final meeting is Tuesday, September 13th from 10-1 at the NJ Department of Transportation Building in Ewing. We will be meeting in Training Room B on the 2<sup>nd</sup> floor of the E&O building (Directions were sent out previously).

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